

O I P E JCB  
MAY 03 2001  
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P R I O R A R T CITED BY  
APPLICANT

SHEET 1 OF 7

LIST OF PRIOR ART CITED BY  
APPLICANT  
(PTO-1449)

ATTY. DOCKET NO.  
UIOWA-8P4D1

APPLN. SERIAL NO.  
09/661,153

APPLICANT(S)  
Matthew A. Howard, III

FILING DATE  
September 13, 2000

GROUP  
To be assigned

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
KA	5,554,643	09/10/96	Horwell, et al.	514	419	
	5,540,734	07/30/96	Zabara	607	46	
	5,523,306	06/04/96	Horwell, et al.	514	310	
	5,443,710	08/22/95	Broderick	204	403	
	5,399,565	03/21/95	Greenwood, et al.	514	314	
	5,397,788	03/14/95	Horwell, et al.	514	307	
	5,373,095	12/13/94	Johnson, et al.	540	95	
	5,365,939	11/22/94	Ochs	128	732	MAY 06 2001
	5,340,802	08/23/94	Shiosaki, et al.	514	18	TECHNOLOGY CENTER 13700
	5,332,401	07/26/94	Davey, et al.	607	116	
	5,298,622	03/29/94	Portoghesi et al.	546	15	
	5,263,480	11/23/93	Wernicke, et al.	607	118	
	5,262,178	11/16/93	Camine, et al.	424	94.67	
	5,188,104	02/23/93	Wernicke, et al.	128	419R	

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Dieckman G, Schneider H. "Influence of Stereotactic Hypothalamotomy on Alcohol and Drug Addiction." Appl. Neurophysiol. 41:93-98, 1978
	Mayanagi Y, Hori T, Sano K. "The Posteromedial Hypothalamus and Pain, Behavior, with Special Reference to Endocrinological Findings." Appl. Neurophysiol 41:223-231, 1978
	Nakao H. "Emotional behavior produced by hypothalamic stimulation", Am J Physiol 194:411-418, 1958
	Sano K. "Effects of Stimulation and Destruction of the Posterior Hypothalamus in Cases of Behaviour Disorders and Epilepsy." Special topics in stereotaxis, Berlin Symposion 1970. Hippokrates Verlag Stuttgart.
	Bielajew C, Stenger J, Schindler D. "Factors that contribute to the reduced weight gain following chronic ventromedial hypothalamic stimulation." Behavioral Brain Research 62:143-148, 1994.
	Stenger J, Fournier T, Bielajew C. "The Effects of Chronic Ventromedial Hypothalamic Stimulation on Weight Gain in Rats." Physiol. Behav. 50:1209-1213, 1991.

EXAMINER	DATE CONSIDERED
<i>Matthew A. Howard</i>	5/14/02

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SHEET 2 OF 7

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IOWA-8P4D1

APPLN. SERIAL NO.  
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**APPLICANT(S)**

**FILING DATE**  
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## U.S. PATENT DOCUMENTS

~~MAY 6 2001~~

TECHNOLOGY CENTER R3700

## FOREIGN PATENT DOCUMENTS

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						Yes	No

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**EXAMINER**

**DATE CONSIDERED**

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## U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	4,357,497	11/02/82	Hochmair et al.	179	107E	
	4,969,468	11/13/90	Byers et al.	128	642	
	5,496,369	03/05/96	Howard, III	623	10	
	5,099,846	03/31/92	Hardy	128	653.1	
	5,254,105	10/19/93	Haaga	604	265	
	5,250,033	10/05/93	Evans et al.	604	160	RECEIVED
	5,389,101	02/14/95	Heilbrun et al.	606	130	
	5,429,582	07/04/95	Williams	600	2	MAY 08 2001
	4,850,359	07/25/89	Putz	128	642	TECHNOLOGY CENTER R3700
	5,328,460	07/12/94	Lord et al.	604	67	
	4,735,968	04/05/88	Guth	514	561	
	4,360,019	11/23/82	Portner et al.	128	213R	
	4,490,137	12/25/84	Moukheibir	604	28	

## FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	0,259,906	03/16/88	EP				
	0,158,397	10/1985	EPO				

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	James P. Morgan, "The First Reported Case of Electrical Stimulation of the Human Brain," J. Hist. Med., January, 1982, pp. 51-63
	A. Earl Walker, "The Development of the Concept of Cerebral Localization in the Nineteenth Century," Bulletin His. Med., Vol. 31, No. 2, March-April, 1957, pp. 99-121.
	Penfield et al., "Somatic Motor and Sensory Representation in the Cerebral Cortex of Man as Studied by Electrical Stimulation," Brain, Vol. 60, 1937, pp. 389-443.
	Penfield et al., "The Brain's Record of Auditory and Visual Experience," Brain, Vol. 86, December 1963, pp. 596-696.
	Dobelle et al., "Artificial Vision for the Blind: Electrical Stimulation of Visual Cortex Offers Hope for a Functional Prosthesis," Science, Vol. 183, 1974, pp. 440-444.
	Dobelle et al., "A Prosthesis for the Deaf Based on Cortical Stimulation," Ann. Otol., Vol. 82, 1973, pp. 445-463.

EXAMINER	DATE CONSIDERED
<i>K. L. Howard</i>	5/14/02

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O I P E JC8  
MAY 03 2001

SHEET 4 OF 7

LIST OF PRIOR ART CITED BY  
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ATTY. DOCKET NO.  
UIOWA-8P4D1 APPLN. SERIAL NO.  
09/661,153

APPLICANT(S)  
Matthew A. Howard, III

FILING DATE  
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To be assigned

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,221,283	06/22/93	Chang	606	130	
	4,907,589	03/13/90	Cosman	606	34	
	5,341,807	08/30/94	Nardella	128	642	
	5,385,560	01/31/95	Wulf	604	264	
	5,405,375	04/11/95	Ayers et al.	607	122	
	4,892,102	01/9/90	Astrinsky	128	642	
	5,429,131	07/04/95	Scheinman et al.	128	642	
	5,642,544	10/03/95	Saksena et al.	606	15	
	5,584,847	12/17/96	Duluco et al.	606	185	MAY 08 2001
	5,380,288	01/10/95	Hart et al.	604	167	
	5,582,609	12/10/96	Swanson et al.	606	39	TECHNOLOGY CENTER
	3,147,750	09/08/64	Fry	128	2.1	
	5,176,652	01/05/93	Littrell	604	167	
	5,385,146	01/31/95	Goldreyer	128	642	
	5,545,193	08/13/96	Fleischman	607	99	
	5,545,219	08/13/96	Kuzma	623	10	
	4,461,304	07/24/84	Kuperstein	128	642	

FOREIGN PATENT DOCUMENTS

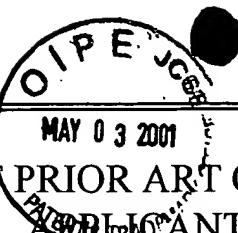
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No

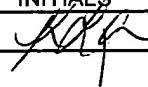
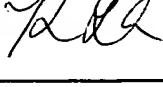
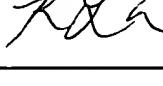
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>Kolb</i>	Cohen et al., "A Prospective, Randomized Study of Cochlear Implants," N.E. J. of Med., Vol. 328, No. 4, January 1993, pp. 233-237.
	Eisenberg et al., "Electrical Stimulation of the Auditory Brain Stem Structure in Deafened Adults," J. Rehab. Research, Vol. 24, No. 3, 1987, pp. 9-22.
<i>Kolb</i>	Center for Integrated Sensors and Circuits, "Passive Multichannel Recording and Stimulating Electrode Arrays: A Catalog of Available Designs", July 1991.
	Medtronic, "The ITREL® II, The third generation of excellence, (1991).
<i>Kolb</i>	Eggermont, "Neural Interaction in Cat Primary Auditory Cortex," 10/92; pp 1216-1228 J. of Neurophysiology, Vol. 68, NO. 4.
	Bak, M. et al., "Visual Sensations produced by Intracortical Microstimulation of the Human Occipital Cortex, Med. Biol. Eng. Comput., 28:257-259 (1990).

EXAMINER <i>Kolb</i>	DATE CONSIDERED <i>5/14/02</i>
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				APPLICANT(S) <b>Matthew A. Howard, III</b>		
				FILING DATE <b>September 13, 2000</b>	GROUP <b>To be assigned</b>	
<b>U.S. PATENT DOCUMENTS</b>						
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,545,201	08/13/96	Helland	607	127	
	4,762,135	08/09/88	Van Der Puije et al.	128	784	
	5,545,200	08/13/96	West et al.	607	122	
	5,531,759	07/02/96	Kensey et al.	606	213	
	5,119,832	06/09/92	Xavier	128	786	
	5,000,194	03/19/91	van den Honert et al.	128	784	MAY 08 2001
	5,271,397	12/21/93	Segliman et al.	607	10	
	5,697,975	12/16/97	Howard III, et al.	623	10	TECHNOLOGY CENTER
<b>FOREIGN PATENT DOCUMENTS</b>						
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation Yes      No
<b>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>						
	Brindley, G.S. et al., "The Sensations Produced by Electrical Stimulation of the Visual Cortex, J. Physiol. 196:479-493 (1968).					
	Damasio et al., "Three-dimensional In Vivo Mapping of Brain Lesions in Humans, Arch. Neurol 49:137-143 (Feb 1992).					
	Drake, K.L., et al. :"Performance of Planar Multisite Microprobes in Recording Extracellular Single-Unit Intracortical Activity, IEEE Trans. BME 35-719-732 (1988).					
	Hitselberger, W.e. et al., :"Cochlear Nucleus Implant, Otolaryngol head neck-Surg. 92:52-54 (1984).					
	Martuza, R.L. et al., "Neurofibromatosis 2 (Bilateral Acoustic Neurofibromatosis), N. Engl. J. Med. 318: 684-688 (1988).					
	Penfield, W. et al., "Epilepsy and the Functional Anatomy of the Human Brain, Little, Brown and Company, Boston, (1954)					
EXAMINER				DATE CONSIDERED 5/14/02		

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## U.S. PATENT DOCUMENTS

May 6 2021

TECHNOLOGY CENTER R3700

## FOREIGN PATENT DOCUMENTS

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

<i>K.La</i>	Ifukube, T. et al, "Design of an Implantable Tinnitus Suppressor By Electrical Cochlear Stimulation", Biomechanics, Rehabilitation, Electrical Phenomena, Bimaterials, October 28-31, 1993, pp 1349-1350.
<i>K.La</i>	Dobelle, W.H., "A Prosthesis for the Deaf Based on Cortical Stimulation", Annals of Otology, Rhinology and Laryngology, Vol. 82, 1973, pp 445-463.
EXAMINER <i>Kathleen A. Prochazka</i>	DATE CONSIDERED <i>5/14/02</i>

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	4,154,247	5-1979	O'Neill	607	125	
	5,582,609	12-1996	Swanson et al.	606	39	
	4,892,102	1-1990	Astrinsky	600	374	
	5,551,426	9-1996	Hummel et al.	600	374	
	4,244,362	1-1981	Anderson	600	585	
	5,462,544	10-1995	Saksena et al.	606	15	
	5,536,267	7-1996	Edwards et al.	606	41	
	5,429,161	7-1995	Scheinman et al.	600	374	MAY 08 2001
	5,119,832	6-1992	Xavier	607	117	TECHNOLOGY CENTER R3700
	5,341,807	8-1994	Nardella	600	381	
	5,417,207	5-1995	Young et al.	600	323	
	4,172,451	10-1979	Kline	600	374	
	4,522,212	6-1985	Gelinas et al.	600	374	
	5,855,576	6-1999	LeVeen et al.	606	41	
	5,702,429	12-1997	King	607	116	
	5,327,889	7-1994	Imran	600	585	
	5,983,126	11-1999	Wittkampf	600	509	
	4,565,200	1-1986	Cosman	600	585	
	5,487,739	1-1996	Aebischer et al.	604	890.1	

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